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Trends in Production, Marketing, and Family Living and Their Effects on Purchases and Sales by Farmers*

H. B. James
Head, Agricultural Economics Department
North Carolina State College
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I think you realize that this is a rather broad subject and that one would not be able to cover it very thoroughly in 25 minutes. I have decided to spend my 25 minutes discussing the following 5 points: (1) Changes in demand, (2) Changes in methods of production, (3) Changes in marketing, (4) Changes in family living, (5) Some effects of these changes.

Changes in Demand

In deciding what to produce, one not only deals with trends in production, but one deals with changes in demand. I assume that farmers will produce what people want and that when I am talking about changes in demand, I will be reflecting trends in production.

In thinking about what to produce during the next 20 years, one should look at three points which are important in determining the demand for agricultural products.

A. Income. The incomes of people affect the amount of money they spend and, to some extent, the way they spend it. What is happening to income in this country and what is likely to happen in the future? Gross national product increased 240 per cent from 1929 to 1954. It has doubled since World War II and currently is running at a rate of about $408 billion. It is expected to be about $500 billion by 1965 and about $650 billion by 1975. Further, we might add that, if present rates of gain continue, one could expect 60 percent of the families in the United States to have an annual income of $5,000 or more by 1975.

What effect does increased income have on the consumption of agricultural products? As incomes rise, the proportion of income spent on agricultural commodities declines. We usually refer to this income-consumption ratio as income elasticity of demand. This ratio changes as income changes. The higher the income, the lower the elasticity. For 1950, it was estimated that for each one dollar increase in income, about 25 cents would be spent on agricultural products. By 1975, it is estimated that for each one dollar increase in income only about 14 cents will be spent on agricultural commodities. These calculations are based on the quantity of agricultural commodities consumed and not on total

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* Most data taken from USDA sources.

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expenditures. Figured on the basis of total expenditures, the ratio would be a good deal higher since marketing margins are fairly high and will likely increase further in 1975. Income elasticity varies among commodities. For some products, per capita consumption increases as income increases. For others, per capita consumption declines as income increases. Poultry products is an example of the first group, and dried beans is an example of the second group.

B. Population. United States population increased 31 per cent from 1929 to 1953. Currently, we have about 167 million people in the United States. By 1975, the population may well be 210 million. An increase in population means an increase in consumption of agricultural commodities.

Per capita income in the U. S. increased 47 per cent from 1929 to 1953 and is expected to increase about two-thirds between 1953 and 1975. Per capita income for agriculture in the U. S. increased 56 per cent from 1929 to 1953. Agricultural output is now about 50 per cent greater than it was in 1935-39 with 20 per cent fewer farms and 30 per cent fewer workers. If farm families are to have an increase for the nation at large, it will be necessary to decrease the number of farms by 20 per cent or more. This means productivity per worker will have to be increased even more. Birth rates are much higher in agriculture than in non-agriculture; hence, it will be necessary to continue for some time to shift people from agricultural to non-agricultural occupations if the farm population is to be kept in line with the need for labor to produce food and fibre.

C. Exports. The trend in exports has been down. Agricultural exports decreased 13 per cent from 1929 to 1953. They now run about $3 billion or about 7 per cent of our production. If this trend continues, we might expect to have about $2½ billion in exports 20 years from now. Some items, such as food grains, will probably decrease, while others may increase slightly.

Summary of Long Run Changes in Demand

If present trends are projected, it would appear that we will need about 40 per cent more agricultural products in the United States by 1975. Currently, we are producing about 10 percent more than we need, so the need for increased production amounts only to about 30 per cent. Overall food consumption per capita in the United States will increase about 10 per cent. Taken with the expected 55 million increase in population, total food requirements will increase about 45 per cent. Consumption of non-food agricultural products is expected to increase less than foods.

The consumption of poultry and fruits is expected to increase about 16 per cent per person during the next 20 years. Increases of about 10 per cent per person are expected for meats, eggs, and fresh vegetables. Fluid milk and cream consumption is expected to increase about 5 per cent per person. Consumption of fats and oils per capita will remain about the same. The consumption of cereal grains is expected to decrease about 5 per cent per capita, and the consumption of dried beans and potatoes is expected to decrease as much as 15 per cent per capita.

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Changes in Methods of Production

The two things necessary to make a rational decision in regard to production are economics and technology. Neither alone is sufficient. I feel that considerable progress has been made in the area of understanding economics in recent years. Farmers and business men are much more conversant with economic terms and the use of economic principles than they were a decade ago. Modern technology has, and will continue to have, its effect on agriculture. Technology makes it possible for labor to produce more. As agricultural labor becomes more productive, fewer workers are needed; hence, some workers can be transferred to the non-farm economy where they can produce other goods and services which are wanted by the public. This is the way a nation moves from a low income agrarian society to a wealthy industrial nation such as ours. First, we must make agriculture productive enough so that all of our resources are not needed to produce food and fibre. Second, we must make sure that there are opportunities for resources to transfer out of agriculture into the non-farm sector of the economy and to produce goods and services which are in demand by the people. This process has been going on in our country for a long time. For example, in 1900 approximately 44 per cent of our nation's civilian labor force was employed on farms, and one worker produced enough for himself and almost 6 additional consumers. Today, only 13 per cent of our country's labor force is employed on farms, and one farm worker produces enough for himself and approximately 19 other consumers. Farm labor can, and no doubt will, be further reduced, especially in the Southeast.

An increase in capital makes it possible to release labor since capital is a substitute for labor. Capital requirements for efficient farming have increased rapidly, and the end is not yet in sight. Minimum standards of efficient farming indicate a need for twice as much capital in agriculture in North Carolina as we now have. Capital per worker is increasing. Capital per operating unit is increasing and is now quite large. Getting started in farming on an efficient basis is becoming more difficult.

As capital requirements become larger and larger, it will be necessary for us to give more attention to the questions of transferring farms from one generation to another and of providing adequate credit for farmers. This not only means credit for the purchase of a farm and for the operation of a farm, but especially does it mean credit for the making of adjustments in farming systems. Short term and long term credit have received more consideration than intermediate credit. Here in the Southeast, it is intermediate credit which is the shortest in supply.

Production per man hour is increasing. Production per operating unit is increasing. The family size farm is becoming larger. Size of business is becoming more closely associated with efficiency. That is, certain machines require volume for efficient production. Unless this volume is available, the addition of the new machines may actually increase cost of production instead of reducing it. The conflict between diversification

and efficient production is becoming more acute. Specialization is likely to increase as individual farmers strive to gain additional efficiency. Diversification may gain on a State or county basis, but for the individual farm, diversification will increase only if there is sufficient capital and volume of business to increase efficiency and to diversify at the same time. Cash cost relative to total cost is increasing. For the nation as a whole, cash costs now account for about two-thirds of the farmer's gross receipts. The farmer sells more and buys more. The price of factors of production, including labor, is no longer determined within agriculture. Most of the things the farmer buys are determined in a market much larger than agriculture itself. The financial well-being of the farmer is more vulnerable to general economic conditions, unless he is protected by new economic rules of the game.

Changes in Marketing

Marketing is becoming more important. More of the factors used in agriculture are produced in the non-farm sector of the economy. This means the factor markets are becoming more and more important to farmers.

Product marketing functions and services performed are increasing, and more of them are being performed in the non-farm sector of the economy. The farmer's share of the consumer's dollar has decreased and will decrease further in the future. Although the farmer may use his declining share of the consumer's dollar effectively for political arguments, it is of no real consequence in determining his income. For example, the farmer's share of the consumer's dollar for flue-cured tobacco is approximately 15 per cent, whereas his share for poultry and eggs is about 66 per cent. If the share of the consumer's dollar received by the farmer were the sole criterion, one would expect tobacco farmers to give up their allotments and begin producing poultry and eggs. This is far from the case. The important thing to the farmer is the amount of net income and not the margin between what he receives and what the consumer pays for the product. My criterion for determining whether margins are too high is based upon the returns to resources used in the production of marketing services for the particular commodity involved and on the level of technology used in that industry. If levels of technology and returns are comparable for resources used in other industries, I conclude that margins are not out of line.

Volume is a factor which bothers farmers, especially when it comes to marketing. In many cases, they are not able to bring together enough volume to enable them to standardize quality and to handle the product efficiently. Someone must be available to accept small quantities and to grade and standardize quality and to do the job efficiently so that the farmer gets a reasonable return for his product. Unless farmers are able to put a standard quality of product on the market and to perform the marketing functions efficiently, they are not likely to be able to compete with larger organizations in other areas. It is here that the cooperative seems to be in an extremely favorable position to render a real service to agriculture.

Changes in Family Living

I shall point out only a few of the changes in family living. I hope the ones I select will be the ones most appropriate to this discussion. First, there has been a rapid change in diets. The shift has been from cereals, potatoes, and dried beans to meats, fruits, vegetables, and milk and eggs. This have resulted in a shift in demand for these products. Second, more marketing services are demanded. The housewife seems quite willing and happy to pay for additional services. More housewives are employed now than a decade ago. Looking to the future, even more services will be demanded and provided. Third, synthetic products have become more important and have effected demand for agricultural products. Competition will continue to be keen in the future. Fourth, as purchasing power increases, families spend a smaller proportion of their income for agricultural products. The demand for services associated with agricultural products increases much more rapidly than the quantity of products at the farm level. This means a slight increase in demand for food as incomes rise, but means a much greater increase in demand for non-farm items. Fifth, the cash costs of living has increased. This is true even for farmers since they tend to buy more items that make up their level of living now than in former years. Sixth, many more items go to make up the standard of living today than formerly. This means the economics of choice is more important. If people have limited resources, they must decide how they will use these resources to maximize family living.

Some Effects of These Changes

I have indicated some of the shifts in demand which have been taking place and which are likely to take place during the next 20 years. In general, the shifts are in the direction of higher protein and vitamin and lower calory content diets and away from starchy, high calory foods. If farmers are to produce what people want, it means shifts in production in some regions. Shifts in production cannot be made without markets. How do we go about organizing markets and providing marketing facilities? This seems to be another place where the co-op has an opportunity to render a real service to the farmers.

I have mentioned changes in methods of production. These changes involve more output for less labor, more capital, more technology, and better management. These changes mean that we buy more of the factors of production. They mean that size of business is becoming more important and that specialization is an effort to achieve efficiency. They mean that agriculture itself is a much more specialized area than it was a hundred years ago. We now have a vast labor force in the non-agricultural sector of the economy producing factors of production to be used by agriculture. Between the farmer and the consumer, we have a vast array of people who are processing and handling the products of the farmer. When you combine those

who produce the factors of production, the farmers themselves, and those who perform the marketing services, we have approximately 40 per cent of our total labor force engaged in agriculture.

I have emphasized the importance of changes in methods of marketing. The housewife does not buy a live chicken anymore---she buys a chicken that is dressed and prepared for cooking. The chain stores do not buy a few birds or a few vegetables from a dozen farmers. They buy in volume, and they buy volume which has been standardized as to quality. If farmers want to compete in national markets, they must find some way of assembling their products and standardizing the quality and getting enough volume together so that they can compete in a national market. Agricultural leaders and farmers here in the Southeast do a lot of talking about producing enough to meet its own needs. In my opinion, this thinking is entirely too narrow. Why should we limit our thinking to producing the amount which we use within a State? Where would our tobacco farmers be today if we only produced enough to meet our own needs? Why not think in terms of producing and marketing produce on a national market. Then we have an opportunity to expand. We have opportunity to do business in a business-like manner. I should add, of course, that if one expects to compete in the national markets, one must produce efficiently, and one must market efficiently; one must standardize quality, and one must put his product on the market in sufficient volume to attract national buyers.

I mentioned earlier that farmers are enjoying a much higher standard of living than they did 25 years ago. The number of items consumed by farm families has increased. They have more goods and services to choose from. The cash cost of living has increased, and farmers must buy more if they are to keep up with their city cousins. The differences between levels of living in rural and urban areas have decreased, and farm people tend to have the same conveniences and to enjoy many of the same things that urban people enjoy. This means that cooperatives should take into account the items needed for family living by farm families. Here may be a good place to increase the volume of business and help meet the needs of rural people.

It seems to me that the changes which are taking place in the demand for farm products, in agricultural production, in marketing, and in the demand for marketing services, and in family living are such that they create a very real opportunity for farm cooperatives to render a much greater service to farmers than they have in the past. However, I feel that I should remind you that "two-by-four" farmer cooperatives will not do the job. The job demands the best management available and will demand sufficient capital to make the organization function efficiently. In my opinion, present conditions present a real challenge to farmer cooperatives.

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